

SUPPLEMENT.

The Mining Journal.

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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Original Correspondence.

FOREIGN MINING AND METALLURGY.

Attention has been concluded between the Government of the Grand Duchy of Luxembourg and certain forgemasters of the Grand Duchy of which the latter receive a concession of about 200 acres of mineral lands. Metz and Co. will receive 200 acres; Charles and Jules Collart, 45 acres; Philippe Servais, Majerus, and Co., 37 acres; the Luxembourg Furnaces Company, 200 acres; Giraud and Co., 45 acres; the Blast Furnaces Company, 90 acres; and Gouner, Munier, and Co., 90 acres. The concessionaires undertake to pay to the Government for 50 consecutive years a rent of 10,000*l.* per annum, to be amongst them in proportion of the extent of land conceded. The first payment of this rent is to be made Dec. 31, 1873.

A sensible fall has taken place at Paris in copper, no very sensible transactions having been concluded. At Havre, Chilean copper is made 91*l.*; ditto in ingots, 96*l.*; and Corocoro minerals (standard), 96*l.* per ton. At Marseilles, Spanish copper in plates is 92*l.* per ton; and small refined ingots, 92*l.* per ton. In the financial crisis has not failed to exert a certain influence on the markets. Transactions have been confined to the most urgent needs, speculation holding absolutely aloof. The monetary position of Germany and the disorganisation of the London tin market had an unfortunate influence at Rotterdam; Banca has made at Paris there have been no transactions worth mentioning; silver at Havre or Paris, has made, 150*l.*; Straits, ditto, 150*l.*; English, delivered at Havre or Rouen, 152*l.* per ton. The market has remained without change; Banca has brought at Havre, 150*l.*; and English, 154*l.* per ton. In consequence of the English and Dutch tin markets quotations German markets have been generally declining. At Paris at nearly the same price as last week; French lead, at Paris, has brought 24*l.* 12*s.*; Belgian and German ditto, 24*l.* 12*s.*; delivered at Havre, 24*l.* 8*s.*; and English, 24*l.* 16*s.* per ton. Marseilles lead has experienced a slight fall, but upon the whole the article has been firmly maintained. At Paris there has been no great amount of business passing in zinc, but quotations, nevertheless, slightly improved. The German zinc has been generally firm.

There has been rather more doing in the Belgian iron trade, and prices have even exhibited a slightly upward tendency; the limit which appeared to be prescribed a week since somewhat exceeded. Some contracts for plates have been at 16*l.* 16*s.*, while merchants' iron, No. 3, has sold at 13*l.* 4*s.*, bringing back the basis price to 11*l.* 12*s.*, instead of 11*l.* 4*s.*. At the same time, the activity has not been very great, and mills have especially restricted their production. The activity in the activity prevailing is especially attributable to the fact that the Belgian works have with German purchasers, as a pretext or another, refuse to accept the execution of contracts which they concluded when the price of iron followed an upward, which appeared as if it would never attain its full development. The complaints of Belgian ironmasters on the subject of their German clients are general, and many of them are to be paid in full before delivering the balance of such they may have engaged to supply. They thus prefer to refuse orders which they might derive from their contracts, rather than sustain interminable legal proceedings, in which loyalty is certain to triumph over bad faith. At a sale of old iron by the Belgian State Railways, old iron from the types of steam engines, tenders, carriages, and trucks realised from 7*l.* 4*s.* to 10*l.* per ton.

Not much to note in connection with the French coal trade. The market has been very indecisive, and very little business has been done. At the same time quotations are maintained with no immediate fall in prices appears to be apprehended. Contracts have been entered into in the Pas-de-Calais, and one of these contracts, relating to 15,000 tons of all-rank coal, has been concluded at 12*l.* 0*s.* 10*d.* per ton.

The iron trade remains quiet, or rather, perhaps, undecided, is beginning to appear. In the Champagne group of pig, for refining, is quoted at 6*l.* 16*s.* to 7*l.* 4*s.*; mixed coke, 6*l.* 8*s.* to 6*l.* 12*s.* per ton; ditto coke-made, 6*l.* 0*s.* per ton; No. 1 coke-made pig, for second fusion, 7*l.* 12*s.* per ton; No. 3 ditto, 7*l.* 4*s.* to 7*l.* 12*s.* per ton; No. 1 charcoal-made, 4*l.* 4*s.* to 9*l.* 8*s.* per ton; first-class rolled iron from coke, 12*l.* 8*s.* per ton; mixed ditto, 12*l.* 16*s.* to 13*l.* 4*s.* per ton; charcoal-made, 13*l.* 12*s.* to 14*l.* per ton; first-class special, 12*l.* 8*s.* per ton; first-class sheets, coke-made, 11*l.* 12*s.* per ton; ditto, charcoal-made, 14*l.* 16*s.* to 15*l.* 4*s.* per ton; No. 14*l.* to 14*l.* 8*s.* per ton; machine, No. 20, coke-made, 14*l.* per ton, &c. Notwithstanding the reduction which has been indicated when compared with the quotations recently made, the market is not at all active. An attempt is made to show that the slackening in transactions is to be found in the political situation. The explanation is certainly sufficient to justify the stagnation in affairs or the reaction in France, as in Belgium and England, the iron trade has been excessive production, and the reaction which must follow after a period of extreme prosperity. The intelligence from the Nord and the Meurthe is not more satisfactory. Nord iron brought last week 11*l.* 4*s.* to 12*l.* per ton according to the importance of orders, No. 3 second fusion, at 8*l.* In the Meurthe-et-Moselle pig displays a downward tendency; white pig has fallen from 6*l.* 12*s.*, and No. 3 pig from 5*l.* 16*s.* to 5*l.* 10*s.* per ton, and persistent making at the reduced rates. A blast-furnace of very large powers has just been constructed by M. Desforges at St. Dizier; its production, when in full operation, will be 100,000 tons of pig iron per week. This is the first blast-furnace of these dimensions in France, and the largest of the kind. The St. Dizier group, the largest furnaces of the district not possessing more than 20 or 25 tons. The reaction is supplied with all the most improved appliances, and an adjudication has just taken place at Paris

for the supply of the pipes, &c., required in connection with the distribution of the waters of the Vanne in that capital. MM. Boigues-Rambourg and Co. and M. Caillot de Wailly obtained the contract for the first two lots, and that for the third lot was secured by the Vienne Metallurgical Company. The contracts were let at the prices of the original estimates.

The Belgian coal trade presents scarcely any change; at the same time, there has been no great amount of business passing. Consumers maintain an attitude of absolute reserve, relying, as they do, on the fall which is expected to be witnessed, since it is the general conviction that colliery proprietors will not be able to maintain much longer the prices which they now demand. Symptoms of an approaching fall are becoming more and more numerous and significant, and one of these is the increase in stocks. Thus, the stock held in the Charleroi basin on March 8 was estimated at 41,040 tons, while the corresponding stock had increased May 10 to 150,000 tons. This re-constitution of stocks in the Charleroi basin is all the more significant since it has occurred notwithstanding rather considerable deliveries made to sugarworks. The supplies of the sugarworks will in all probability be completed in the course of next month; several of these works have now all that they require. When the demand for the sugarworks subsides a fresh accumulation of stocks will take place, and it will become then very difficult for coal-owners to maintain the prices now quoted. We may add that the coal of the Ruhr basin continues to flow into Belgium to a large extent, and presents a rude competition with Belgian coal. The competition of the Ruhr coal is felt even on the export markets of Belgium. Thus, the report of the Northern of France Railway Company states that for some months past Ruhr coal has been forwarded to Paris, and that this movement of Ruhr coal promises to acquire a serious development. The coalowners of the Ruhr basin appear resolved to sustain energetically a struggle with Belgian colliery proprietors, since as soon as the latter make concessions the former also propose reductions. We must not also lose sight of the fact that most of the great French railway companies, instructed by experience, and fearing that they should be taken unawares and be compelled, as they were last year, to pay extravagant prices for the coal which they require, have laid in their supplies early this year. Thus the Lyons-Mediterranean Company has now in stock 90,000 tons of combustible, which will provide for its consumption for 45 days, and the Eastern of France Company now possesses 82,000 tons, or sufficient for 69 days' consumption. Two other companies, the Western and the Orleans, have also taken precautions, and have laid up a sufficient stock of coal to render it unnecessary for them to submit to the exigencies of colliery proprietors. Upon the whole, it may be said that there is a good deal of stagnation in the Belgian coal trade, and, also, that this stagnation threatens to continue, and to involve with it a fall in prices. The Belle-et-Bonne Colliery Company, at Flénu-Jemappes, will pay on June 20 a dividend for the second half of 1872 of 3*l.* 12*s.* per share.

COLLIERY ACCIDENTS—HERMON PRIZES.

SIR,—Referring to the letter of mine, to which you kindly gave admission in your valuable paper a short time ago, you added a note to the effect that it was well understood that only working miners were to compete for the prizes. Since seeing that note I have made a search for the paper I received from Mr. Hermon, on the faith of which I gave the necessary time to preparing an essay for competition. I enclose the paper referred to. It contains two letters, signed by Mr. Hermon. In the first you will see that he offers the premiums to practical miners. Now, Sir, every mining engineer considers himself a practical miner, for were he an unpractical miner he dare never aspire to be an ornament to his profession; but since you may possibly differ from me as to the meaning of the phrase "practical miner," I beg to refer you to Mr. Hermon's second letter, dated Nov. 16, 1871, in which he says—"I find from communications I have received from other localities that it will not be well to limit the area to the coal mines of Lancashire and Yorkshire only, nor to confine the competition to any particular class. The object in view is to obtain, in as concise a form as possible, the most practical suggestions for the preservation of life in mines, and the avoidance of the terrible explosions we all deplore." Surely, Sir, this language is plain enough. Mr. Hermon does not confine the competition to any particular class, and as his object is the preservation of life in mines he could not be guilty of the absurdity of excluding from the competition the class most competent to compete. I trust that the examiners who are deciding on the merits of the several competitors have before them this letter of Nov. 16, 1871, and I have no doubt you will now admit that you had been misinformed when you wrote the article of which I complained.

A RESIDENT COLLIERY MANAGER.

OFFER BY MR. E. HERMON, M.P.—The newly-elected Mayor (Mr. Miles Myres) has just received the following letter from Mr. Edward Hermon, M.P., junior representative of the borough:—

MY DEAR SIR,—I have felt deeply the terrible calamities that have befallen our mining population of late, and have considered whether anything could be done to prevent these catastrophes. With this object in view I propose to give a premium of 200*l.* for the best essays on the subject, to be competed for by practical miners in the coal fields of Lancashire and Yorkshire—say, 150*l.* for the first prize, and 50*l.* for the second.

In your official capacity as Mayor and Coroner, I am sure you will assist in gaining the attention of those concerned to the subject. I have no doubt we shall find three able and impartial judges to decide on the merits of the pamphlets, one of the conditions being that phraseology or spelling shall not influence the decision, but the prizes to be awarded for the most useful and life-preserving suggestions.

To Miles Myres, Mayor, &c.

THE OFFER OF MR. HERMON, M.P. (to the Editor of the *Preston Herald*).—SIR: Referring to the letter you kindly inserted in your paper of Saturday last, I find from communications I have received from other localities that it will not be well to limit the area to the coal mines of Lancashire and Yorkshire only, nor to confine the competition to any particular class. The object in view is to obtain, in as concise a form as possible, the most practical suggestions for the preservation of life in mines, and the avoidance of the terrible explosions we all deplore. I propose that the pamphlets should be sent in by January 31 next. Their destination, together with the names of the judges, will be announced in a future advertisement.

From the letters of Mr. Hermon, given above, it will be seen that our own views on the subject of the prizes have been fully borne out. In the first letter of Mr. Hermon it is distinctly stated that the essays were "to be competed for by practical miners." The subsequent letter to the *Preston Herald* qualified the previous one by stating that the competition was not to be confined "to any particular class." It is, however, clear that the actual offer was made to "practical miners," and to our thinking a mining engineer is no more a "practical miner" than is a civil engineer a practical excavator, or "navy." "A Resident

Colliery Manager" has availed himself of the phraseology of Mr. Hermon's second letter to a newspaper, and singularly significant, indeed, as it has turned out, he was the only mining engineer who did so. With the information thus before him it remains to be seen whether our correspondent, "A Resident Colliery Manager," will put himself in competition with men who are miners pure and simple, and thus place himself in a position which it appears no other mining engineer would do.]

PREVENTION OF ACCIDENTS IN COAL MINES.

SIR,—As the question of accidents in coal mines, and indeed everything connected with this very important staple of commerce and national wealth, is at the present time so freely ventilated, perhaps you will find room in your interesting and popular paper for a letter the writer addressed to the member for Preston, Mr. E. Hermon, on this subject in February, 1872, to which he has received no reply beyond a request not to publish it immediately, on the writer's addressing Mr. Hermon asking his permission to do so after 12 months had elapsed. The writer again addressed Mr. Hermon on March 19, without any reply; and upwards of 15 months having now elapsed he considers himself privileged to communicate the contents of the said letter to the public, as follows:—

Starcross, Devon, May 20.

TO EDWARD HERMON, ESQ., M.P., PRESTON, LANCASHIRE.

"SIR,—Seeing a leading article in the *Mining Journal* of the 27th ult., respecting your liberal offer of a reward for essays on prevention of accidents in coal mines, I sat down to put my views on paper upon this important subject, but as I observed by the supplement of the same *Journal* of the 3rd instant that the competitors must only be working colliers in Lancashire and Yorkshire, I did not forward my ideas to you; however, on second consideration, having had some experience as a practical working coal miner in Chili, and never met with an accident, and having studied the subject for many years upwards, I venture to offer them to you *quodlibet* valent, and first of all will preface my remarks as to the foregoing observation:—Many years ago I was residing in Sunderland, and visited from time to time several of the local collieries at Haswell, Hetton, Felling, &c., going underground both previously to and after serious accidents had occurred from fire-damp, &c., thereby acquiring a rudimentary knowledge of the working of collieries in all its branches, and the geological features of coal formations, &c. In the year 1840, after spending 12 years active and continuous service in the Royal Navy as a Master, I was invited by the late Lord Abinger, at the solicitation of an American gentleman, Mr. Wm. Wheelwright, to take the command and management of an enterprise under the British flag for establishing steam navigation in the Pacific; and as the Lords Commissioners of the Admiralty would not grant me leave for this object, I was reluctantly obliged to resign my commission as a Master of a line-of-battle ship, and sacrificed all my time in the navy and title to half-pay, &c.; however, I had the honour of conducting the first steam ship that ever navigated its waters through the Straits of Magellan in September, 1840.

I had particular instructions from the board of directors to make myself acquainted with the geology of the coast, as to the probability of finding coal in the south of Chili, as Lord Cochrane had reported its existence near the bay of Talcahuano. I arrived in this bay in October of that year, and after strict enquiries could learn nothing from the British Vice-Consul, or anyone else of any coal having ever been found in that neighbourhood. I proceeded, however, to examine the cliffs in the vicinity of the town, and finding a sloping cliff, called the Morro, to be composed of magnesian limestone, like those near Sunderland and Hartlepool, also both red and white sandstone with bands of shaly clay, I determined to prove this Morro, with permission of the owner, by hiring a gang of men with mattocks to slice down the surface after clearing off the underwood, when I had the satisfaction of discovering a virgin seam of true coal about 2 ft. thick, some 70 ft. above the level of the sea. On the face of this seam I commenced to drive an adit, and found, after working off the friable surface, a good hard bituminous coal as we proceeded into the hill—a piece of the coal first broken is now in the Albert Memorial Museum in Exeter. I will not trouble you with detail, and in relating all the difficulties I had to surmount in this (at that time) primitive country; I had to be my own engineer, viewfinder, pit sinker, and drift proper, boring rod and pump manufacturer, &c., with the assistance of the ship's engineers, a whole ship's carpenter and blacksmith. The pumps were made of 2 in. plank, dovetailed together over brown paper and white lead, banded with clasp hoops screwed together, the pump boxes were square; these worked very well; so that I ultimately succeeded in winning some 30,000 tons of coal from this spot, which was used on board the steamers of the P.S.N. Company. I also discovered coal at Concepcion, Coronel, Lota, and on the Island of Chiloe. The coal mines at Lota and Coronel are now producing an immense annual output, although I, as the discoverer of true coal and practical pioneer of this enterprise, never reaped the slightest benefit from it. I also discovered coal on the Island of Amortajado, at the mouth of the River Guyas, in Ecuador, and having crossed the Isthmus of Panama several times from the year 1832 to 1846, I pointed out places not far from Panama where I thought, from geological appearances, coal would or might be found—and coal has since been found at these places. But not to enlarge on the foregoing facts—in proof of which I beg to enclose an authentic document herewith—I will at once proceed to state the views I have always held for the last 45 years as to the simple ventilation of coal pits like those which Mr. Brunel had on this South Devon line for exhausting the tubes of the Atmospheric Railway, as it was called; and although this idea had long been entertained by me as a practical man, after witnessing the terrible destruction of life and property, before mentioned, yet it came more forcibly before me whilst watching the action of the powerful atmospheric engine at work at the Starcross Station in 1847 and 1848; and after the dreadful accident which occurred, I believe in 1849 or 1850, I think near Wigan, I wrote to the Inspector-General of Coal Mines, entering fully into the subject, but regret to say that I have mislaid the copy of my letter, neither can I now recollect the name of the Inspector at that time, nor were exactly the accident happened—no doubt it will be in the archives of the Inspector's office. I recollect stating in my letter that as the atmospheric railway between Exeter and Newton was going to be done away with, I had no doubt the engines could be bought for little more than their value for old iron; that one engine was capable of pumping out so many thousand cubic yards of air charged with carburetted hydrogen, smoke from gunpowder, &c., in an hour—I (I have unfortunately mislaid my data for this also)—using only the refuse small coal for fuel, which is allowed to burn away on the heaps, so that the expense would be very trifling. That what I proposed was a capacious chamber of wrought or cast iron (an old boiler would do) fixed at the bottom of the shaft, recessed, if necessary for space, with a suction pipe from 25 to 30 in. diameter on top, and a series of flanged openings as required for the various drifts or galleries branching off from the lower part of ground level for attaching cast-iron pipes—say, for uniformity 9 in. in diameter or upwards each, all leading from the different workings or levels into said chamber lying close to the ground at the sides out of the way of tramming and hauling, and having at every 50 yards or so a flanged opening with a hood or bell-mouthed funnel about 2 ft. in diameter, fitted with a lid, the size of pipe like the lid of a tea-kettle, to be removed or fixed at pleasure, or a simple disc valve below the hood, a self-acting vacuum valve to be fitted on the top of the chamber with a wire attached to the governor of the engine so as to regulate the speed or stopping of the engine as required. By this simple means the carbonic acid gas, carburetted hydrogen, foul air, &c., would be drawn off into the chamber by constant pumping night and day, as fast as it became generated or opened into, and in order to allow the goaves to be drawn off, by removing one of the hoods or bell-mouthed funnels and attaching an elbow in continuation of tubing or piping leading into the goave by shutting the disc valves or putting on the covers beyond (where the air was fit to work in) these goaves would be immediately cleared. All bolts, nuts, &c., to be of one uniform size, with a spanner attached by a small piece of chain to each hood, under the charge of the leading hand of that particular level, and under the orders of the viewer. Of course if the levels were all clear of gas, the discs may be closed, and the engine stopped, although by keeping the hood at the ends of the levels always open a free circulation of fresh air would be kept up if there was no gas or foul air to pump off, the expense being so trifling.

Although not exactly relevant to the subject, I may add that I also recommended, in order to raise a fund for establishing annuities to the widows and orphans of the poor fellows who may have lost their lives in coal mines, and to provide remuneration and smart money for such as might have become wounded or disabled beyond their own control, that an Act of Parliament should be applied for to levy a tax of 1*d.* per ton on all clean coal sent from the screens at the pits' mouth, to be paid quarterly to Her Majesty's tax collector for the district under the supervision of the local inspector, and pensions, remuneration, smart money, and doctors' bills, &c., connected therewith be paid out of such fund under Government inspection; and probably improvements in dwellings might also be paid for out of the same fund. At that time I conceived that the quantity of coal annually raised in the United Kingdom was about 75,000,000 tons, which at 1*d.* per ton would realise for this fund (say) in round numbers 156,000*l.*, or with the present output over 200,000*l.* per annum? I also recommended that it was worth the consideration of the Chancellor of the

Exchequer to impose a duty of 6d. per ton on all clean coal delivered at the pits' mouth, and 1s. per ton on all coal exported to places abroad not being colonial possessions of Great Britain, which would allow almost a total reduction of the income tax, and would not be felt oppressive by any one."

Sturcross, Devon, Feb. 10, 1872.

Formerly a Master in the Royal Navy.

CAPT. THOMAS PARKYN, AND TIN DRESSING.

SIR.—A great deal of Capt. Parkyn's letter, in last week's Journal, is quite unintelligible to me; this may have arisen from one or other of two considerations—its being either above or below my comprehension, and making, if it makes any impression at all, one not very flattering to the writer. If I had set out to assail his dressing-floors, as he calls them, perhaps he would not be better able to defend them than he is now his position regarding the Great Royalton Mine. There is here and there, however, an intelligible streak or two in the letter, and to these I will briefly reply.

First, he complains of my parading his name before the public; but that is a charge more intelligible than correct. Ought he not rather to complain of "Plumbum Album" for doing so? It was him, and not me, who did that, yet Capt. Parkyn seems to have approved the act by taking upon himself to defend it. Secondly, he further complains that I do not say anything about stamps grates. Why should I? I was not aware that there was any controversy between myself and them. One thing I may say, and that is that I am without prejudice in the matter, and that before I commit myself to any course in this respect I always consider the character and quality of the tinstuff to be stamped, and disregard wholly routine, as practised by others. With regard to brains, their culture, and the nice adjustment of their equilibrium, which Capt. Parkyn seems to fall back upon as a last resort with so much confidence, I have nothing to say personally, as I think we are poor judges of our individual possessions in that line; I rather prefer deferring to the judgment of others; their verdict, from its being much less partial, is much more likely to be correct. By-the-bye, so far as him and myself are concerned, the *Mining Journal* may be found a faithful reflector of our individual capacities in the matter of brains; and it certainly will do so if he is disposed to prolong this controversy; and, as there is nothing further to notice in Capt. Parkyn's letter, I shall, without proceeding further, await his reply to my last.

MINE AGENT.

ON TIN DRESSING—CAPT. PARKYN'S "SAVE ALL."

SIR.—I notice the remarks of "Agent" in his letter in Saturday's Journal, where he says he does not indulge in personalities. This appears to be very singular, as through the whole of his letters he shows some spleen against Capt. Parkyn, or he is a very narrow-minded man, one that would live himself, and "Clearall," if allowed and knew how to do so. All mine adventurers are becoming aware that it is time to be up and doing when they have undeniable proof that over 100,000L worth of tin is annually wasted, a large portion of which goes into the sea, benefitting no man. Then see what a quantity is lost lying about our mines. I first take Drake Walls, a mine stopped through poverty, when 70,000L worth of tin is found on the mine that has been stamped to all but atoms. Another large portion is carried into what was called distilled water, to within a few yards of the ebb and flow of the tide. Had they not been compelled to catch it there who would have ever seen that tin was so carried off? This caused the Duchy officers to open their eyes, and see how they had lost their dues. These officers are men with an eye to business, and at once set about to ascertain how this tin got all but into the sea. They had all the refuse on the mine assayed by well-known and experienced men, who proved that 950 tons of tin is now lying about on the mine, worth (say) 90L per ton = 85,500L. I ask how much more is at the sea side? I should set it down, with what is on the mine, and by the way, at 100,000L. Then I ask "Clearall" to tell me how much was carried over the slight barrier between it and the sea, where it is lost for ever? I will not now notice the value of that portion.

I next take East Basset lost tin, which "Clearall" called 70 tons, found on an abandoned mine. This was what it fetched at a sale. Then I would ask "Agent" or rather "Clearall," if he were the purchaser of that? May I ask, again, if he would risk the purchasing and taking out of that tin if he did not value it at over 100 tons of marketable tin? Then I ask him if the agents who do the like are not either fools or rogues? I will not mince these points. Then, I might mention a mine from which they rose in the last working 100,000L worth of tin. Since it was abandoned over 100,000L worth has been returned. Are adventurers to be robbed by fools—or what may I call them? I know in another place a mine from which a large quantity of tin was raised, making heavy calls, till the shareholders could stand it no longer, and the mine was abandoned. The agent found a man with money at command to join him, and they purchased the refuse. But they clear all, and say nothing. I may some day get at the value of the tin they returned since in their hands. I could name 40 such instances. These tin-wasting mines are not half out yet.

When last at Redruth I had to go to the foundry. Having occasion to go into the house garden, what was my surprise to find it all converted into frames and floors working. I did not count them, but I could see some that appeared to be even in the foundry. I was a stranger there, and said but little. In my way back I saw a man, whom I thought to be "Agent," looking over the hedge. I asked him if he had frames there; he said that he had no room, he wished he had. I asked if he could not find a corner for two or three; he said he had a spare back-house, or kitchen, and that he thought of putting up one or two in it. I further asked him if much tin was coming down, and he said it was coming down as though it was dirt. I asked him from where, and he said from Pedn-an-drea Mine. I did not think of asking how many frames were on the stream, neither do I know the valley; there may be hundreds for what I know. I have since been informed the tin waste first goes from the mine into Wheal Sparrow adit shaft. I am not aware if portions empty into any old mines below, if so it is far preferable to going to sea, as it may have there a chance to grow again.

A friend of Capt. Parkyn told me it was not "Agent" that I saw near Redruth, but his opponent was a man that has managed a tin mine, but it was a dead pull, ever making calls, till it emptied the pockets of the shareholders, when "Agent" and "Clearall" managed to get its refuse. Be this as it may, I can only say that "Agent," whoever he may be, should be placed with the class known as being defective of intellect, and far behind the age we live in, though he may be a man who has reserved his bread and beef; but I tell him he is not made of the right materials, if he were he would be bound in common honesty to have given Capt. Parkyn credit for coming out, if only to stimulate the dilatory to move on and keep pace with the times, and not attempt to throw cold water on a persevering man—a man who is making a great effort to detain 100,000L worth of tin from going annually off the mine. If he were not on good terms with him, he should have let him go on and work out his own salvation. If he failed it is only what hundreds have done before him. See our Cornish engineers; they all but run mad after the combined engines. They all failed, but that is a point gained as to who will do it again. So it will be with Captain Parkyn's "Save All," if he fails.

I have read each of their letters. I have not seen that Captain Parkyn has attacked "Agent," or that "Agent" has ever tried his machinery, or even asked him a single question so as to raise a point to go into. Then who can say that he is anything better than narrow minded. If he is a man who can bear daylight let him give his name, and if not hide himself in a bush; but not shoot anyone on a dark night from behind a hedge. "Agent" says that Captain Parkyn stated that I said the beach below the Red River contains 20 lbs. of tin per ton. I did say so. The wage is that what everybody says must be true. I was never there, but the squatters even say so. "Agent" is the only one I have ever heard dispute it. Then I ask if he has ever examined the works; and if so to come out like a man and say so; and if he cannot let him remain in the dark, or behind a hedge, till the shooting season, when someone may shoot him, supposing him to be a hiding sight.

I notice that "J. S." is out again, and denies my assertions re-

specting his boiler and cylinder. I beg to tell him I hold a letter from a person present when they first tried to start and drowned the cylinder. When I was there the first time "J. S." will remember he showed me how he had lowered the boiler from 5 to 7 feet, to prevent it, and that would not do—then it would not work. He then threw it out, and fixed the great boiler lower still. I do not know if that drowned the engine again, but he shut it all up. This was reported in the public papers, and that it burned more coals than was required to work a 60-inch engine. "J. S." made no reply to that. I admit he was very careful over it when ill, and fed it with a spoon. I regretted his not being there when I last called, as I would have asked him for the loan of the spoon for a pattern to make a stamps-feeding spoon by.

N. ENNOR.

Wadebridge, May 29.

TIN DRESSING—"MINE AGENT."

SIR.—From the Supplement of your last issue I find that "Mine Agent" continues to wield his very unenviable, and apparently his only, weapons—abuse and empty assertion. I refer to the first paragraph of his letter. Alas for him, such missives are not only perfectly harmless—rather beneficial than otherwise—to his opponents, but they will also be found to perform their dire mission only upon himself. The "moral turpitude," however, of his attempts—yea, the "meanness of disposition in the individual himself, and his inability to deal successfully with the matter in question"—remains notwithstanding. * * *

"Mine Agent" seems to be very anxious to justify the position he has taken in this so-called "discussion." And well he might, but he appears to be singularly unfortunate "in making out a case," or rather in his attempt to do so. He has the coolness, to use no stronger expression to imply that in his letter of the 31st inst., headed "Tin Dressing," the name of Capt. Parkyn scarcely appears. He says "It was scarcely to be expected that the name of Capt. Parkyn should have been altogether omitted from my communication." Now, let the "communication" speak. It is divided into sixteen sentences, and exhibits the name in question no less than eight times, or on an average "Mine Agent" managed to direct attention to it in every alternate period in his letter. In the name of common honesty I would ask—Does this look like an unavoidable circumstance? Does it not rather appear as if "Mine Agent" wilfully pulled Capt. Parkyn before the public as often as he could in the said "communication"? Add to this the expressions employed, the meaning they are evidently intended to convey, the tenor and spirit of the whole, and no intelligent, honest man will deny that "Capt. Parkyn" is the appropriate heading of the letter, and not "Tin Dressing;" that the latter is only made a mere superficial mean excuse whereby to attack the former. This glaring failure is followed by another equally ruinous to the cause it was intended to serve. "Mine Agent" represents himself as the champion—more correctly, the would-be champion—of "the whole community of tin miners in Cornwall." They had been "slurred," their "mining knowledge" and their "genius" ignored, according to "Mine Agent." Now, the question arose, in his mind, who shall defend and exact redress for the injury done to the "whole community of tin miners in Cornwall?" "Mine Agent," it is unnecessary to say, himself has solved his own problem in a practical form. Self-elected, self-constituted, self-supported, and, indeed, self-everything, "Mine Agent" has "scaled" an "acme" whereon he appears first ludicrous, then pitiable, and, last of all, perhaps offensive. It is, indeed, "easy to be a braggart;" we need not go far for instances to illustrate that. "But what then?" Why, even a "Mine Agent," whilst endeavouring to hold another up to public ridicule, may unwittingly delineate his own character not in attractive colours, or, perhaps, reveal an undesirable position which he himself once occupied. "Ah! it is not so much what we think of ourselves as what others may think of us."

May 29.

PLUMBUM ALBUM.

THE NEW CENTRAL-LIFT STAMPS.

SIR.—Having occasion to call at Mr. Walker's works, in James-street, a few days since, I had an opportunity of seeing his new plan of guiding stamps, which appears to me the best arrangement yet introduced. The shanks work through stuffing boxes filled with a piece of soft coal, and oiled, and neither touch wood nor iron, so that the guides do not wear out, and the expense is very trifling compared with the quantity of grease now used. Besides, it does away with the jar when the stamps fall, and for crushing quartz for amalgamation the advantage must be great, as grease spoils the mercury. I have always esteemed Mr. Walker's plan of lifting stamps as by far the best in use, and this new arrangement for guiding them makes his apparatus as perfect as possible, and at the same time the attendant is enabled to turn a set of four stamps round in about a minute. Mr. Walker informed me that he had just erected a set of stamps in the country on this plan, and they work very smoothly indeed, and give the fullest satisfaction.

A PRACTICAL ENGINEER.

THE SELF-STYLED PACIFIC MINING BUREAU.

SIR.—We note in last week's *Mining Journal* the letter of Mr. W. Aven's, of the Stock Exchange, and headed "The Self-Styled Pacific Bureau." It is not our province to answer the serious charge made; it will doubtless be replied to by competent members of the Bureau in due course. All we at present consider our duty is to state that we have only very recently accepted the agency in London, and before doing so satisfied ourselves of the existence of the Bureau, the respectability of the members comprising the same, and the bona fides of the association.

We do not understand the motive of your correspondent, but think before he wrote the letter he might have taken steps similar to ourselves to satisfy himself that the Bureau in question is not what he represents, but a properly constituted body of highly respectable and able men, and the various comments in the leading journals will appear to confirm this opinion.

Permit us to add that whilst we retain the agency we will not, knowingly, lend ourselves to misrepresentations from any source, but endeavour to have carried out strictly that which we consider to be the object of the Bureau—the faithful reporting by competent mining authorities information respecting mineral properties submitted for examination, and thereby acting as a check upon fraudulent schemes only.

JAMES I. BENNETT AND CO.,

General Agents of the Mining Bureau of the Pacific Coast.

71, Cornhill, London, May 25.

THE SELF-STYLED PACIFIC MINING BUREAU.

SIR.—It was quite refreshing to read the letter in your Journal of Saturday last on the above subject, signed "W. Aven's." What a pity it is there are so few like him, who have the candour to come forward and expose these self-styled undertakings. The time has arrived when something ought to be done to put the public on their guard in relation to the life, character, and behaviour of these American mines which have been brought before the public, and millions of pounds paid for them, without any adequate return, and others that are now lying in ambush ready to be palmed on the credulous, either by a new mode in the shape of a title to be given by a Mining Bureau, or by the old dodge of highly manufactured and concocted reports and prospectuses, with high-sounding names suited for the London share market.

If warning the public is preaching to living and not dead men, they will for the future have nothing to do with these, to say the best of them, questionable undertakings. There are few (if any) of them that have a bona fide character to recommend them as safe speculations, and it is much to be regretted that at the present time "honesty in joint stock companies is at a discount," while "money got by promotion by hundreds of thousands of pounds, regardless of character, is at a premium," and gives to the promoters of the present day the American title of being "sharp fellows," with a *locus standi* in society, as it is now formed. This used not to be the case. However, it is no use arguing that point now, for since foreign schemes have been introduced into England the honour and integrity of the parties introducing them have apparently ceased to exist, and the shareholders themselves for the last five years are the best wit-

nesses of the truth of these statements. I trust the influence of your Journal will stop the Bureau, and any other combination, from proving in the future dangerous misleaders to the public.

Peckham, S.E.

A CONSTANT READER.

THE COSTA RICA GOLD MINING COMPANY.

SIR.—I have observed in the *Mining Journal* of March 23, and previous papers, mention of the Costa Rica Gold Mining Company's property. I have been through the mining districts in the Costa Rica Republic, and from my observations am satisfied that this company's property cannot be too highly recommended. I believe it will, under judicious management, rank amongst the best paying mines of the day.

There are properties in the Corallillo Monte de Aguacate that have yielded immense wealth to the Costa Ricans; in fact, many attribute their fortunes to the success of the mines worked here, but owing to inefficient mining ability the mines caved, and could not again be recovered, unless by virtue of a long tunnel, for the extension of which a company was being formed in Costa Rica in 1850. The following may be interesting to some of your readers as to the wealth of this point, and I will here name some of the properties.

San Rafael and Menita and Los Oreamunos Mines are situated in the high hilly land of the Corallillo Monte de Aguacate, embracing the main road from the Puertareñas to San José, the capital, and distant from each about nine leagues. Los Oreamunos extends over half mile in length on the line of the lode, and San Rafael 200 yards. These mines were discovered in 1852, and yielded in the first very short period of their being worked \$1,500,000 in gold, but the little intelligence practised in the subterranean works developed, and the abundant and very heavy falls of rain, were the cause of drowning the mine, particularly at a point where gold quartz was being realised worth from \$2000 to \$3000 per ton, according to the most authentic information. The mine consequently became abandoned, with the exception of a very limited superficial excavation, resulting extremely satisfactorily. In the year 1861 a company was formed, consisting of a few capitalists of the country, to resume the workings; but discord entering in between them, the company was dissolved without effecting anything.

In 1863 another company was formed for working the Menita, a neighbouring lode crossing the Oreamunos and San Rafael, this company continued working, and, according to plans made in 1862, the adit or drain level gained a depth beyond the winze flooded in Los Oreamunos of 75 English feet, and the breasting within 50 yards of the rich ground before referred to; hence the Menita may be termed so far, a key to the other properties. The lodes in Los Oreamunos and San Rafael generally run parallel, from 1 to 2 varas apart, occasionally forming a junction; the bearing is N.W. and S.E., from 5 to 6 feet wide, composed principally of felspar, blende, iron, copper (sulphuret), and auriferous quartz, yielding in the aggregate \$20 to \$30 per ton; it is sufficiently common to discover a yield of from \$4000 to \$5000 per ton in conformity with the results achieved prior to its being flooded. It has even reached \$28,000 per ton in the rich soil. The mines stand about 2500 feet above the Pacific, and the climate is excellent. There is a cart-road for transporting machinery and material of any size throughout the year.

The copper and iron sulphurets in these lodes will undoubtedly, after concentration, be found rich in gold; and as they will not, probably, be treated in that country, owing to want of facilities, should be saved and shipped to Swansea for treatment. Native labour is cheap, and can be readily obtained at from \$6 to \$8 per month, with board. It will be necessary for a company operating extensively to send out a few good Cornish timbermen, as the ground is easy for working. Natives can do it on contract, with timbermen to keep the ground secure.

San Francisco, California, May 12.

English Mining Engineer.

MR. ENNOR'S REMARKS ON MINING IN WALES.

SIR.—It would appear to me that whoever is instructing Mr. E. Ennor on this subject is as ignorant of it as he himself must be. Indeed, there never was a greater inaccuracy than the following, which appeared in his letter of the 20th inst., and I defy him to prove his statement. He says—"I have lived long enough to discover that if I report on one mine out of ten in Cornwall as having a fair chance to become a paying one it is over the mark. Only one in 40 pay in Devon, and not one in 50 in North Wales, in these much vaunted Cardigan district."

From this we should, first, fancy that Cardiganshire is in North Wales; it happens, however, that it is one of the southern counties of the Principality. Secondly, we should be led to judge that he has inspected at least 50 mines in this district, which is a greater number than are working in the county. It would be folly to attempt to refute his statement further, as the dividend mines speak for themselves; and it is solely for contradicting a complete tissue of untruths which Mr. Ennor has written, and which appeared in the Journal, that I am induced to write you, knowing that for the sake of justice, as well as for the wish on your part, that true statements only should be published by you, that I send you this—and which, if allowed to go uncontradicted, might possibly have a tendency with some parties of doing this county injury; or, at all events, prejudice capitalists from investing, as they otherwise would.

Perhaps Mr. Ennor will favour us with the list of 50 mines inspected by him in this district, all of which must be blanks, as he says not one out of 50 pay in the district.

Goginan, Aberystwith, May 27.

ABSALOM FRANCIS.

LEGITIMATE MINING ENTERPRISE.

SIR.—It is a well-known fact to men practically acquainted with mining operations that the immense failures in the so-called mining investments (or rather speculations) are the result of embarking in very old and exhausted mines, such as appear in the columns of the Journal from time to time. For example, after certain explorations are carried on, probably, for years a rich mine, or deposit, of some mineral is discovered; a rush immediately takes place, abandoned and worthless old sets are taken up and reports, embodied in prospectuses, of wonderful returns having been made, and immense profits realised, whilst nothing of the kind, in many instances, ever occurred. This happens for a time in the district the discovery is made. New names are given to float the enterprise, immense premiums are charged for such property, in too many instances the scheme is of little or no commercial value, and recent events prove that ten times the amount realised honestly out of one rich mine is lost in the ten failures! If, for example, one out of ten mines of late started in Cornwall only pay, one out of every forty in Devonshire, and not one out of fifty in Cardigan make any profitable returns. None of the metallic mines in Merionethshire and Carnarvonshire have ever paid anything in the shape of dividends, as the result of many things will shortly prove.

Capitalists should invest in undertakings most likely to pay them. According to recent accounts there are 100 coal mines in two counties in Great Britain now paying a profit on the working capital of 100,000L each annually, and from every prospect likely to continue to do so. Compare these home investments with such as the British public has so eagerly rushed into of late years in the Great Pacific, and other similar undertakings, to their utter ruin, as statement after statement weekly appearing in the Journal testify. The result is that a most severe panic is now existing in the share market, consequently the most valuable discoveries of late are taken notice of whatever, a proof that the public mind has been poisoned to an enormous extent. We are told that a rash man is sure to repent if he possess any wisdom whatever. He that maketh haste to become rich shall suddenly become poor. There must be something fearfully unpleasant looming at no very distant period, for many when some of the most flattering bubbles burst.

A. BENNETT.

PROFESSIONAL REPORTERS OF MINES.

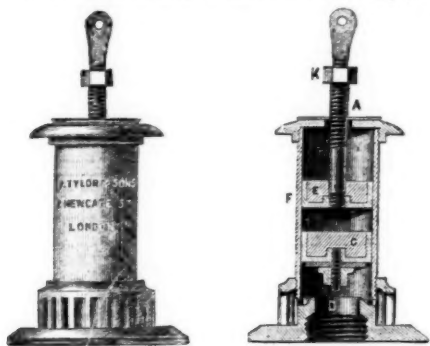
SIR.—In the Supplement to your valuable Journal of May 17, Mr. E. Ennor concludes the survey of some "professionals." What does he think of a man receiving a large royalty from the back door of an inn "through his glass," the royalty being fully four miles off, and full five miles from the spot where one is to be seen? Professional's hotel bills in the teens of pounds, and surveying bills

ASBESTOS. The attempt which has recently been made, with some prospect of ultimate success, of incorporating asbestos into textile fabrics, by mixing the fibres of this substance with the cotton or wool during the weaving process, has attracted some attention to the localities where suitable deposits are known to exist. The material is by no means rare, so it is most generally present in greater or less quantity in regions where the so-called primitive formations are found. But while its employment, for several fire proofing compositions, is tolerably well known to the manufacturing public, does not extend as far to the same quarter, it appears that for its incorporation into textile fabrics only those qualities with the finest and longest fibres are suitable. There are extensive deposits of this material within the limits of the United States; that found in the eastern slope of the Green Mountains, and in the Adirondack region being of the best quality thus far discovered for fineness and tensile strength. Recent discoveries, however, in North Carolina, may, when better known, carry the attention of these interested in the material that far to the south. The asbestos of the Adirondack quality is found in the State. The fibre of the New York and Vermont asbestos varies in length from 2 to 40 inches, and the material resembles unbleached flax when found near the surface, but when obtained from greater depths it is pure white and very flexible. In Europe the material is found in considerable quantities in the Tyrol, in Hungary, Corsica, and Wales. The industrial applications of asbestos are steadily growing, and it is likely to be used for many purposes. It is, however, not so generally known that its considerable tensile strength is a prominently involved, an indispensable article, in which account the discovery of deposits of suitable quality may be regarded as of importance. —*Journal of the Franklin Institute.*

INSTITUTION OF CIVIL ENGINEERS.

The annual Conversazione of the President of the Institution Civil Engineers was again held in the picture galleries of the Exhibition building, South Kensington; and, to judge from the extent to which both the galleries and the machinery court were filled, the invitations given by Mr. Hawksley (the President) and Mrs. Hawksley must have been very numerous. The inventions shown, although not numerous, were very interesting, and appeared to attract much attention, the fact of the machinery and processes being shown in full operation adding materially to the pleasure derivable from the inspection of them. The patent sand-blast process is probably entitled to most prominent notice, because it was, perhaps, as much appreciated by the ladies as the macaroni manufacture, and also processes of much scientific interest. It was explained that the main object of the inventor of this process was to engrave ornamental and other devices upon plain and coloured glass, upon stone, and upon metallic surfaces, in an expeditious and economical manner, and with a sharpness which is unattainable by any other means. The invention, which applies chiefly to intaglio and flat relief engraving, is based on the fact that when glass, stone, or metal is subjected to the impact of a blast of sand, or equivalent hard granular substance, the detrition of the surface exposed to its action will be rapidly effected. Many pieces of glass were operated upon in the course of the evening, and the results were, without exception, satisfactory. As the sand-blast does not act upon India-rubber, wax, paper, or similar soft and elastic materials, advantage is taken of this fact to imitate on the glass the most beautiful embossed designs. When stone, wood, or metal are ornamented by this means the effect is excellent. The delicacy of the process will be best understood from the fact that a piece of lace spread over and cemented to a sheet of glass will so effectively protect the glass when exposed to the sand-blast that the threads of the network will, after a few seconds exposure, be imitated on the glass by bright interlacing lines, while the rest of the glass surface will be reduced to a ground or frosted state. The efficiency of the blast depends upon its velocity. The sand may be propelled either by steam, water, or air, but steam is in general preferred where high velocities are required. When a large quantity of material is to be removed, as in the ornamenting of stone, a steam jet of from 60 to 80 lbs. pressure is used. In this case the stencil is made of iron or rubber; but when a small quantity of material is to be worn away, or the surface merely polished, as in ornamenting glass, a jet of air of from 1-10 to 1 lb. pressure is preferred. With a low pressure, soft and delicate substances, such as paper designs, lace, leaves, &c., cemented on glass, may be used. With a steam jet using two-horse power of steam at 70 lbs. pressure, and one pint of sand, two cubic inches of granite, four cubic inches of marble, or ten cubic inches of sandstone, may be cut away per minute. It will be obvious that flat or curved surfaces may be alike acted on by this process, the blast being in all cases directed to the detrition of the surface. But to the readers of the *Mining Journal* the greatest interest will be felt in the proposed application of the sand-blast for cutting grooves in tunnels and quarries, for dressing stone, cutting stone in lutes, cleaning scale from metals, &c.; and it would be very desirable that the result of its use for these purposes should be made known.

But perhaps the most ingenious contrivance exhibited was the patent "waste-not" valve, manufactured and shown by Messrs. J. Taylor and Sons, the celebrated brassfounders of Newgate-street, which stands exactly opposite the sand-blast machine. The invention is, we believe, due to Mr. Alfred Taylor; and, whilst it works to perfection, it is unsurpassed in simplicity by anything that we have seen. The essential feature of the invention is the lifting of a free piston valve by another piston; and, as both are always under water, tight packing becomes unnecessary, and friction being reduced to the minimum the valves appear quite unlikely to get out of order easily, and will be very durable. Supposing the valve shown in the diagram is placed in a cistern, and intended to supply a water-closet, it would, in the case of a slate cistern, be fixed with a screw and fly-nut, or in case of lead cisterns by simply soldering,



month by steamer, as the additional freight will be nothing if covered with the saving in time. They calculated it will crush 50 tons per day. The schooner had not got out so quickly as expected, but they hoped by this time she had nearly reached her destination. It was found the stores cost a great deal of money, and it was suggested that Mr. Clemes should indent upon the board from time to time; Mr. Clemes had already adopted the suggestion. Under the head of prospects, Mr. Clemes says the green ore has fallen off, but in his letter of April 11 he adds they have the green ore lode on the slide, and there are indications that it may improve as it goes on. Mr. Clemes hopes it may, because it forms the source whence he gets his ready money. It is true the black ores are worth more money, and when the crusher was at work they would be able to largely increase the output of black ores—in fact, they depended upon the crusher to double the returns. In addition to the amount stated under date of March 11, a further shipment of 15 tons of concentrated ores had been made, and there were waiting to be shipped 48 tons of concentrated and 31 tons of unconcentrated ores, valued at 45¢, and 30¢ per ton respectively, estimating them at their gross value. The decrease in the results of the first three months of the current half-year was attributable to the falling off of the green ores; but they were getting for their black ores a much better price at the Government works at Freiberg than can be obtained in this country; and, therefore, they proposed to continue selling them there. The men sent out had arrived at the mines, and the manager speaks very well of them; the Mina Grande shaft is now being proceeded with, five of the six being experienced timbermen, and the other a very competent mine blacksmith. It is to be hoped, however, that in depth of the ground in the shaft would be sufficiently hard to prevent the use of timber, which is a most material consideration, as timber is not to be found in the country, but has to be brought from San Francisco.

little badly. There had been statements made that the mine was of the best character; he had himself seen a letter from an eminent gentleman in Salt Lake City, which affirmed that an old miner said that ore of a higher grade than described in the public reports had been found at the bottom of the mine. In order to test in every possible way the truth of the statements which had been made the directors thought that they could not do better than ask the Flagstaff people to let



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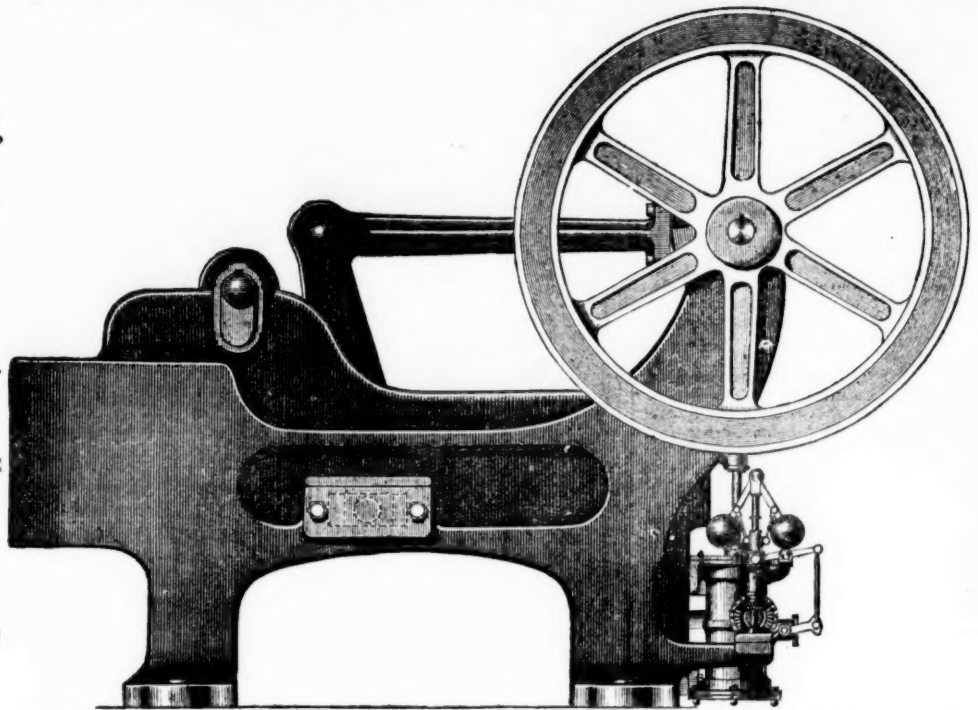
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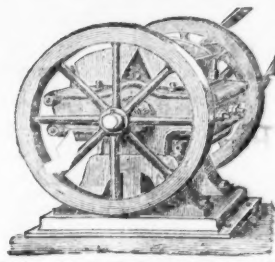
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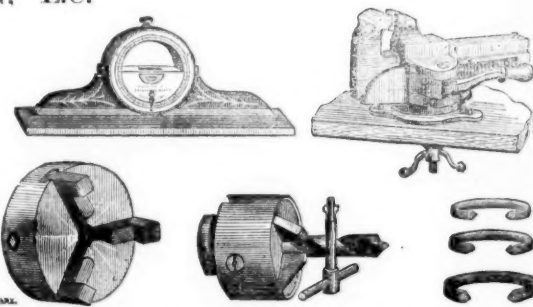
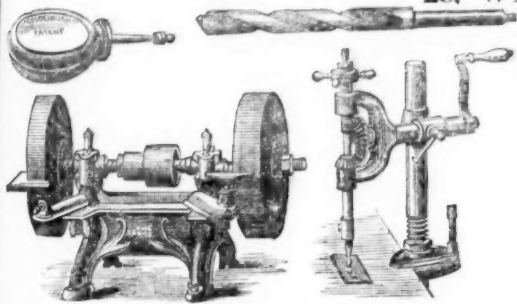
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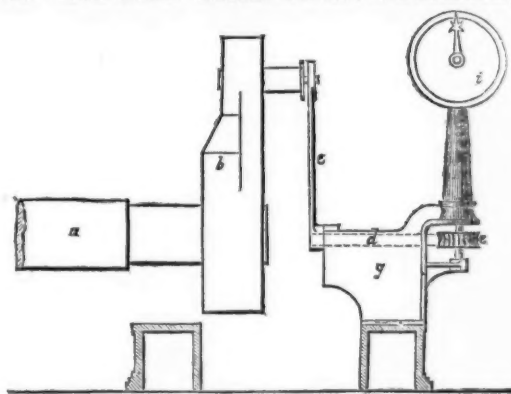
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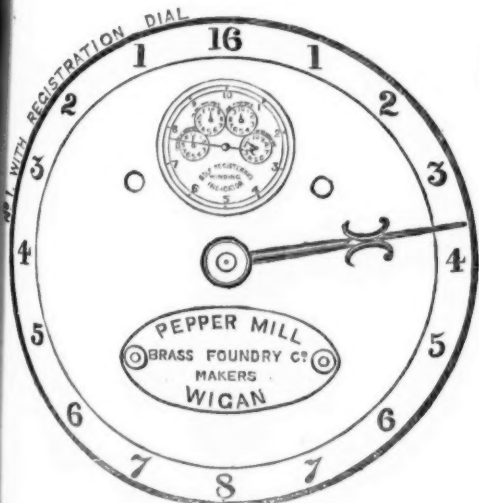
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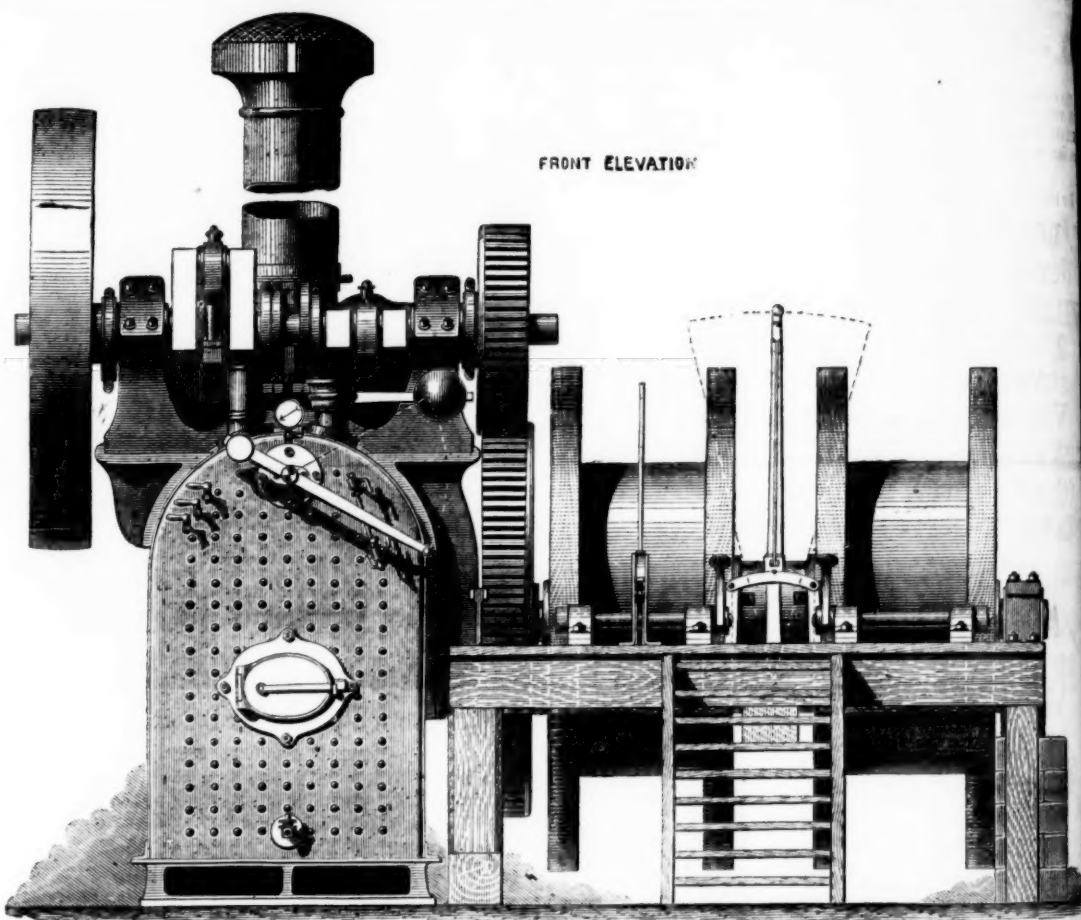
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